



Pilots and Medication

Impairment from medication, particularly over the counter (OTC) medication, has been cited in a number of accidents in general aviation. In a 2011 study from the FAA's CAMI Toxicology Lab, drugs/medications were found in 570 pilots (42%) from 1,353 total fatal pilots tested. Most of the pilots with positive drug results, 511 (90%), were flying under CFR Part 91.

What's the Problem?

First of all, we all know that some drugs may compromise a pilot's ability to control the aircraft and/or adversely affect judgment and decision making. The difficulty comes for investigators in trying to quantify the known detriment that comes with various medications and the physical conditions that require their use.

Another area of concern is that airmen are not always disclosing some conditions and medications to their Aviation Medical Examiner (AME). Not only could the undisclosed condition endanger the airman, but the treatment might also create problems. One way is that undisclosed treatments could cause potentially impairing drug interactions. That's why it's important to disclose any medications you are taking to your AME. In many cases there are other treatment options that may allow you to continue flying, but the bottom line is that your AME needs to know what medications you are using.

What to Look For

The Food and Drug Administration (FDA) requires standard labeling for all OTC medications. These standard labels indicate the active ingredients, directions for use, and highlight potential side effects like drowsiness. They also allow for easy comparison.

Drug Facts										
Therapeutic substance in drug	<table border="0"> <tr> <td>Active ingredient (in each tablet)</td> <td>Purpose</td> </tr> <tr> <td>Chlorpheniramine maleate 2 mg</td> <td>Antihistamine</td> </tr> </table>	Active ingredient (in each tablet)	Purpose	Chlorpheniramine maleate 2 mg	Antihistamine	Product type				
Active ingredient (in each tablet)	Purpose									
Chlorpheniramine maleate 2 mg	Antihistamine									
	<p>Uses temporarily relieves these symptoms due to hay fever or other upper respiratory allergies:</p> <ul style="list-style-type: none"> ■ sneezing ■ runny nose ■ itchy, watery eyes ■ itchy throat 	Symptoms or diseases the drug treats								
	<p>Warnings</p> <p>Ask a doctor before use if you have</p> <ul style="list-style-type: none"> ■ glaucoma ■ a breathing problem such as emphysema or chronic bronchitis ■ trouble urinating due to an enlarged prostate gland <p>Ask a doctor or pharmacist before use if you are taking tranquilizers or sedatives</p>									
When not to use this drug, when to stop taking it, when to see a doctor, and possible side effects	<p>When using this product</p> <ul style="list-style-type: none"> ■ You may get drowsy ■ Avoid alcoholic drinks ■ Alcohol, sedatives, and tranquilizers may increase drowsiness ■ Be careful when driving a motor vehicle or operating machinery ■ Excitability may occur, especially in children <p>If pregnant or breastfeeding, ask a health professional before use.</p> <p>Keep out of reach of children. In case of overdose, get medical help or contact a Poison Control Center right away.</p>									
	<table border="0"> <tr> <td colspan="2">Directions</td> </tr> <tr> <td>Adults and children 12 years and over</td> <td>Take 2 tablets every 4 to 6 hours; not more than 12 tablets in 24 hours.</td> </tr> <tr> <td>Children 6 years to under 12 years</td> <td>Take 1 tablet every 4 to 6 hours; not more than 6 tablets in 24 hours.</td> </tr> <tr> <td>Children under 6 years</td> <td>Ask a doctor</td> </tr> </table>	Directions		Adults and children 12 years and over	Take 2 tablets every 4 to 6 hours; not more than 12 tablets in 24 hours.	Children 6 years to under 12 years	Take 1 tablet every 4 to 6 hours; not more than 6 tablets in 24 hours.	Children under 6 years	Ask a doctor	Read carefully: how much to take, how often to take it, and when to stop taking it
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More information on how to store the drug	<p>Other information Store at 20-25° C (68-77° F)</p> <ul style="list-style-type: none"> ■ Protect from excessive moisture 									
	<p>Inactive ingredients D&C yellow no. 10, lactose, magnesium stearate, microcrystalline cellulose, pregelatinized starch</p>	Other things in the drug, such as colors or flavorings								

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Common Problems

Some of the most common potentially impairing medications are antihistamines. These allergy medications can have powerful sedating effects so much so that the primary offender, diphenhydramine (trade name: Benadryl) is often used as an OTC sedative and is the sedating agent in most PM pain meds. According to the NTSB study, sedating antihistamines are the most commonly detected medication in fatal accidents.

The second most common were cardiovascular drugs which includes medications for high blood pressure. Some less common impairing drugs include antidiarrheal drugs (some contain opioids), anti-seizure drugs, some smoking cessation drugs, and some antidepressants. For many of these drugs, there are options that are not impairing or disqualifying if you work with your primary care doctor and/or AME. If you suffer from allergies, you might use loratadine, desloratidine, or fexofedadine instead of diphenhydramine to cite an example.

How Long?

So if you have to take a disqualifying or impairing medicine, how long should you wait before resuming flying? Every medicine is different, but a good rule of thumb is 5 times the half life of the medication. The easy way to determine this is through the dosing interval. If a medication says to take it 4 times per day, the dosing interval would be 6 hours. Therefore the wait time after the last dose would be 30 hours (6 hours x 5 = 30 hours). Other medications may have longer or shorter intervals which is why it's important to talk to your AME.

Where Can I Get More Information?

A good place to start is the AME Guide. This is where the FAA provides information for AMEs on how various medication will affect your fitness for flight. You can also find some specific information on don't fly times for some medications there as well. Be sure to check out the Do Not Issue/ Do Not Fly section. You can also find good information on drugs through trusted government sites like the National Institute of Health's Medline site at <https://medlineplus.gov>. This site lists both generic and trade names along with side effects and warning for almost every drug out there.

Flight Instructor Role

If you're a flight instructor, your role in communicating information on medication use is critical and will likely have a lasting impact over a trainee's flying career. Be sure to take the time to properly cover this topic, especially in the early stages of primary flight instruction. Build time in either pre- or post-flight discussions and encourage your students to ask questions with specific medications. You may also want to refer them to some of the resources listed in this fact sheet.

Resources

- ◆ Medications and Flying Pilot Safety Brochure www.faa.gov/pilots/safety/pilotsafetybrochures/media/Meds_brochure.pdf
- ◆ 57 Seconds to Safety Video — Pilots and Meds youtu.be/auBrixE2LYM
- ◆ AME Guide — Do Not Issue — Do Not Fly go.usa.gov/xPkhM
- ◆ A list of recently published Aerospace Medicine Technical Reports including a study on antihistamine use: www.faa.gov/data_research/research/med_humanfacs/oamtechreports/2010s/2018

